the need for clinical trials with antioxidants according to the Hp phenotype of the patients.

1064-4 Reduced Response to Activated Protein C and Inherited Factor V Mis-sense Mutation in Patients With a History of Acute Myocardial Infarction or Essential Hypertension

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Background: Resistance to activated protein C (APC) which results from various factors, including a mutation in the gene for coagulant factor V (FV), has been demonstrated as a risk factor for venous thrombosis. Moreover, inherited factor V mis-sense point mutation, FV Q506 has recently been identified as a major cause of familial venous thrombosis; but there is little information about their association with arterial thrombosis. This study was designed to investigate both, response to APC and the factor V mutation incidence in Greek patients (pts) with a history of acute myocardial infarction (established arterial thrombosis) and pts with essential hypertension, a high risk group for arterial thrombosis.

Methods: 40 pts with a history of myocardial infraction (Group A), 80 pts with a history of essential hypertension (Group B) and 62 age-matched controls without arterial disease (Group C) were studied. Patients using anticoagulant drugs were excluded. Response to APC was determined in double centrifuged platelet poor plasma. Patients were genotype for the Arg 506 to Gln mutation in the gene for coagulant factor V.

Results: The incidence of the mutation was 20%, 13.75% and 8% in the groups A, B and C respectively. The incidence of reduced response to APC was 47.5% in group A vs 13% in group C ($p < 0.001$) and 36.25% in group B vs 13% in group C ($0.001 < p < 0.01$). The response to activated protein C (APC) expressed as mean value ± SD was 2.05 ± 0.38 in group A vs 2.56 ± 0.49 in group C ($p < 0.001$) and 2 ± 0.19 in group B vs 2.56 ± 0.49 in group C ($p < 0.001$).

Conclusion: Our findings suggest that Greek patients with a history of acute myocardial infarction or essential hypertension have a significantly increased incidence of both reduced response to APC and inherited factor V mutation in comparison to the control group. These preliminary results raise the possibility that reduced response to APC may be a risk factor for arterial disease.

1064-5 Plasma Apolipoprotein B Levels Predict Platelet-dependent Thrombosis in Patients With Coronary Artery Disease

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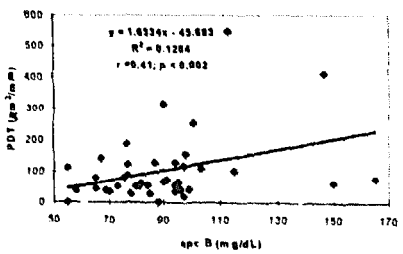
Elevated plasma apolipoprotein (apo)-B level is a known risk for atherosclerotic CAD, however its relationship to arterial thrombosis is unknown. We prospectively assessed apo-B and platelet-dependent thrombosis (PDT) in 42 stable CAD patients on aspirin and lipid-lowering therapy, by exposing porcine aortic media to their flowing nonanticoagulated venous blood for 5 minutes at a shear rate of 800 sec^{-1} at 37°C using an ex-vivo flow chamber model. The PDT was measured by computerized morphometry and expressed as μm^2/mm of the aortic surface.

Results: PDT was significantly correlated with apo-B (Figure). PDT did not correlate with serum total cholesterol (171 ± 26 mg/dL, r = 0.3), LDL-C (102 ± 26 mg/dL, r = 0.2), HDL-C (41 ± 10 mg/dL, r = −0.1), apo A-I (126 ± 16 mg/dL, r = −0.1) or fibrinogen levels (296 ± 60 mg/dL, r = 0.1) (values are mean ± SD; all p = NS).



Conclusion: Elevated apo-B levels are associated with augmented PDT in stable CAD patients despite controlled lipid levels. These findings suggest that the positive relationship of elevated apo-B to CAD may be, in part, related to its prothrombotic effects.

1064-6 Variability and Associations of Fibrinogen and C-reactive Protein in the Framingham Offspring Study

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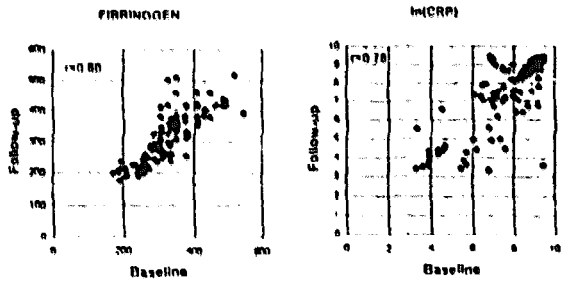
Fibrinogen and C-reactive protein (CRP), 2 inflammatory markers that predict cardiovascular disease, may be useful in assessing changes in risk. To determine variability and associations over time, we measured fibrinogen (Clauss method) and CRP (ELISA) in 100 subjects (50 men, 50 women) from the Framingham Offspring Study over a 4-year interval (age at baseline was 54 ± 10 years). There was a close correlation between baseline and follow-up levels (see figure). Baseline fibrinogen (312 ± 85 mg/dl) increased by 5% ($p = 0.007$) and CRP (3.82 ± 3.81 mg/l) by 6% (p = NS). There was also a significant correlation between fibrinogen and CRP both at baseline ($R = 0.69$, $p < 0.001$) and follow-up ($R = 0.67$, $p < 0.001$), supporting a link between inflammation and a prothrombotic state.



Despite being acute phase reactants, both fibrinogen and CRP were relatively stable over the 4-year period, suggesting that longitudinal differences may provide insight into changing cardiovascular risk.

1064-7 High Incidence of Chlamydia Pneumoniae in Atherosclerosis of Coronary Arteries With Both Genus and Species Specific Antisera

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Background: We have previously reported the prevalence of chlamydial antigen in coronary atheromas from symptomatic pts undergoing directional atherectomy and in control pts. In that study, we used a genus-specific antibody (G-ab) recognizing a chlamydial lipopolysaccharide on frozen tissue samples by immunocytochemistry.

Methods: We sought to extend and compare our observations by retesting these atheroma and control samples for the presence of a species-specific (*C pneumoniae*, RR 402) antibody (S-ab). We used frozen tissue samples and a standard immunocytochemical approach (indirect immunofluorescence).

Results: We found 91/114 (79.8%) atherectomy samples from CAD patients were positive with G-ab and 25/47 (53.2%) were positive with S-ab. Kappa statistic for the relation between the staining result seen with these antibodies was 0.047, showing only marginal agreement. Control tissue from coronary arteries of patients dying of traumatic causes without atherosclerosis was positive in 0/21 with G-ab and 2/21 (9.5%) with S-ab. Patients with transplant-related coronary disease had 0/12 samples positive with G-ab and 1/12 (8%) with S-ab. However, the differences between immunopositivity in atheroma versus control samples were significant for both G-ab ($p = 0.001$) and S-ab ($p = 0.01$). Two of three batches of S-ab caused unacceptably high levels of background staining.

Conclusions: Chlamydial antigen prevalences detected by either G-ab or S-ab immunocytochemistry are increased in coronary atheroma samples compared to controls. Sensitivity and reliability of G-ab is higher, likely due to the lower avidity of S-ab to chlamydial antigens and higher background staining. The possibility of >1 chlamydial species being involved in atherosclerosis cannot be excluded.

1064-8 The Prevalence of Chlamydia Pneumoniae in Atherosclerotic and Normal Blood Vessels of Patients Undergoing Redo and First Time Coronary Artery Bypass Graft Surgery

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Background: Studies have suggested intriguingly that Chlamydia Pneumo-

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